BEST Old Combinator

Key Cutter - Basic Repairs

Cutting Blade

Cutting Blade (Part # A1021)

The cutting blade in the key cutter is a square punch positioned in the die block to punch shallow or deep cuts out of the key blank inserted in the cutter.

Symptoms: Key cuts are ragged.

Cost / lead time: $18.43 / 20 days

Rotating the Cutting Blade

Remove the key carriage, outer half and handle assembly.

1. Remove the key carriage by removing the small screw on underside of the key cutter. Once the screw has been removed the carriage stop pin will drop out of the unit and you can slide the key carriage out.

2. Unscrew the rubber "feet" from the underside of the key cutter.

3. Remove the 2 nuts on the body of the unit (the side with the name plate) using a 9/16" socket.

4. Locate the 3 bolts on the underside of the key cutter that are lined up below the name plate side of the outer half. Remove these 3 bolts from the underside of the key cutter using a 9/16" socket. Once these are removed you can remove the outer half of the cutter.

5. Remove the handle assembly (carriage handle and operating block) by sliding it off the level handle pin.
   Helpful tip: It's easier to remove the handle assembly if you push the handle forward and insert a standard screw driver between the main body and handle spring follower. This releases the tension of the spring and makes the handle assembly easier

7. Position the key cutter with the handle facing away from you. Insert the new pawl spring by placing the screw in the spring and positioning the spring between the main and the ratchet lever. Tighten the screw.

8. Turn the cutter back on its side and look to see if the spring is centered in the track of the ratchet lever. The spring should not touch either edge of the ratchet lever, but be suspended in the center (see Illustration 3). Recheck the position of the spring, adjust and retighted the screw. *If the spring is installed backwards it will work a few times, but will quickly break.*

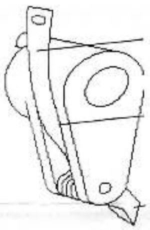


Illustration 3

Replace the outer half

7. Replace the outer half and loosely replace the 2 outside nuts and the 3 bolts on the underside. Alternate tightening between the nuts and the bolts until all are snug. Be sure the handle moves freely

8. Replace the rubber feet.

9. Replace the key carriage. A friction pin which protrudes into the carriage pathway may offer resistance as the carriage is inserted. With some cutters it is necessary to reach into the carriage pathway from the back of the opening and manually depress the pin in order to insert the carriage.

10. Replace the carriage stop pin on the underside of the cutter and secure it by replacing the holding screw. Press the handle 8 times to test that the key carriage advances properly.

to remove. Leave the screw driver in place until you've completed your repair and replaced the handle assembly.

Rotate the cutting blade.

6. Remove the cutting blade/punch from the die block. (See Illustration 1.) If the punch is difficult to remove, look on the underside of the cutter, through the small rectangular opening for the diamond shaped punch. Use a screw driver to push the punch out of the die block.

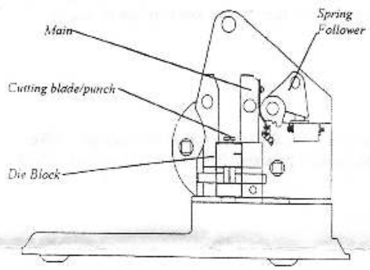


Illustration 1

7. Go to the top of the blade and place a mark on the pin to show the used edge of the blade. This will show you which way to rotate the blade next time you do this repair.

8. Rotate the blade/punch one quarter turn and replace it in the die block. The punch should insert with minimal resistance. <u>Do not force the rotated punch into the die block</u>. It is not unusual that all 4 sides of the punch can not be utilized. If only the worn side of the punch will fit properly in the die block, the punch should be sharpened and replaced as it was originally.

Replace the handle assembly, outer half and key carriage.

9. Slide the handle assembly on to the level handle pin. Remove the screw driver holding the handle spring follower.

10. Replace the outer half and loosely replace the two outside nuts and then the three bolts on the underside. Alternate tightening the two nuts and three bolts until all are snug. Be sure the handle moves freely.

11. Replace the rubber feet.

12. Replace the key carriage. A friction pin which protrudes into the carriage pathway may offer resistance as the carriage is inserted. With some cutters it is necessary to reach into the carriage pathway from the back of the opening and manually depress the pin in order to insert the carriage.

13. Replace the carriage stop pin on the underside of the cutter and secure it by replacing the holding screw. Press the handle 8 times to test that the key carriage advances properly.

Sharpening the cutting blade

The cutting blade/punch can be sharpened by using a V block and surface grinder. Take .001 inch off the bottom of the punch on the first pass and .001 inch on the second pass of the grinder.